

***We Claim:***

1. A peristaltic pump for use in ophthalmic surgery comprising:
  - a housing;
  - a pump head having a plurality of rollers;
  - a backing plate attached to the housing;
  - the pump head for causing the rollers to rotate about a central axis of the pump head, such that the rollers and backing plate cooperate to pinch a length of surgical tubing and peristaltically pump fluids from a surgical site to a collection bag; and
  - wherein at least one of the pump head and backing plate is moveable from a tubing pinched position to a tubing vent position during use of the pump, such that the tubing is vented by removing the pinch between the rollers and the backing place.
2. The invention of claim 1, wherein the tubing vent position is held for less than 1 second.

3. A peristaltic pump for use in ophthalmic surgery comprising:
  - a housing;
  - a pump head having a plurality of rollers;
  - a length of surgical tubing for engaging the rollers, such that as the pump head rotates, aspirant is peristaltically pumped through the tubing; andwherein the pump head is moveable during operation of the pump from a tubing engaged position to a tubing vent position, such that the tubing is vented by the movement of the pump head.
4. The invention of claim 3, wherein the tubing vent position is held for less than 1 second.

5. A method for venting a peristaltic pump comprising the steps of:  
providing a housing including a backing plate;  
rotating a plurality of rollers about a central axis of a pump head held  
within the housing;  
pinching a length of tubing between the rollers and the backing plate  
to peristaltically pump aspirant through the tubing; and  
moving one of the pump head and the backing plate from a tubing  
pinched position to a tubing vent position, such that the tubing  
is vented by removing the pinch between the rollers and the  
backing plate.
6. The method of claim 5, further including the step of holding the vent  
position for less than 1 second.

7. A method for venting a peristaltic pump comprising the steps of:  
providing a housing;  
rotating a plurality of rollers about a central axis of a pump head;  
engaging a length of surgical tubing, such that as the pump head  
rotates the rollers aspirant is persitaltically pumped through the  
tubing; and  
translating the pump head while the rollers are rotating from a tubing  
engaged position to a tubing vent position, such that the tubing  
is vented by the translation of the pump head.
8. The method of claim 6, further including the step of holding the vent  
position for less than 1 second.

9. A peristaltic pump for use in ophthalmic surgery comprising:  
a housing;  
a pump head having a plurality of rollers;  
a length of surgical tubing for engaging the rollers, such that as the  
pump head rotates, aspirant is peristaltically pumped through  
the tubing by the rollers pinching closed a section of the tubing;  
and  
wherein the pinch closing a section of tubing is removed during  
operation of the pump, such that the tubing is vented by the  
removal of the pinch.
10. The invention of claim 8 wherein the pinch is removed for less than 1  
second.